AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 1-28 (previously cancelled)

29. (currently amended) An array of arrays comprising:

(a) a first substrate with a surface comprising a plurality of assay wells comprising samples; and

(b) a second substrate comprising a plurality of array locations, each array location comprising a plurality of discrete sites on a single projection, wherein said sites comprise different bioactive agents, and wherein said plurality of array locations is ~~are~~ configured as a plurality of projections to be dipped from above into ~~fit within~~ said plurality of assay wells comprising samples.

30. (previously presented) The array of arrays according to claim 29, further comprising a hybridization chamber configured so as to receive said second substrate.

31. (previously presented) The array of arrays according to claim 29, wherein said assay wells comprise wells of a microtiter plate.

32. (previously presented) The array of arrays according to claim 31, comprising 96 wells.

33. (previously presented) The array of arrays according to claim 31, comprising 384 wells.

34. (previously presented) The array of arrays according to claim 31, comprising 1536 wells.

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35. (previously presented) The array of arrays according to claim 29, wherein said bioactive agents are selected from the group consisting of nucleic acids, nucleic acid analogs, peptides, peptide structural analogs, saccharides, fatty acids, steroids, purines, and pyrimidines.

36. (previously presented) The array of arrays according to claim 29, wherein said array locations comprise from 10,000,000 to 2,000,000,000 bioactive agents per square centimeter.

37. (previously presented) The array of arrays according to claim 29, wherein said array locations comprise from 100,000 to about 10,000,000 bioactive agents per square centimeter.

38. (previously presented) The array of arrays according to claim 29, wherein said array locations comprise from 10,000 to about 100,000 bioactive agents per square centimeter.

39. (previously presented) The array of arrays according to claim 29, wherein said bioactive agents are directly coupled to said array locations.

40. (previously presented) The array of arrays according to claim 29, wherein said bioactive agents are attached to microspheres and wherein said microspheres are associated with said array locations.

41. (currently amended) An array of arrays comprising a substrate comprising a plurality of array locations, each array location comprising a plurality of discrete sites on a single projection, wherein said sites comprise different bioactive agents, and wherein said plurality of array locations is ~~are~~ configured as a plurality of projections to be dipped from above into ~~fit within~~ a plurality of wells of a microtiter plate.

42. (previously presented) The array of arrays according to claim 41, comprising 96 wells.

43. (previously presented) The array of arrays according to claim 41, comprising 384 wells.

44. (previously presented) The array of arrays according to claim 41, comprising 1536 wells.

45. (previously presented) The array of arrays according to claim 41, wherein said bioactive agents are selected from the group consisting of nucleic acids, nucleic acid analogs, peptides, peptide structural analogs, saccharides, fatty acids, steroids, purines, and pyrimidines.

46. (previously presented) The array of arrays according to claim 41, wherein said array locations comprise from 10,000,000 to 2,000,000,000 bioactive agents per square centimeter.

47. (previously presented) The array of arrays according to claim 41, wherein said array locations comprise from 100,000 to about 10,000,000 bioactive agents per square centimeter.

48. (previously presented) The array of arrays according to claim 41, wherein said array locations comprise from 10,000 to about 100,000 bioactive agents per square centimeter.

49. (previously presented) The array of arrays according to claim 41, wherein said bioactive agents are directly coupled to said array locations.

50. (previously presented) The array of arrays according to claim 41, wherein said bioactive agents are attached to microspheres and wherein said microspheres are associated with said array locations.

51. (currently amended) The array of arrays according to claim 29, wherein said plurality of projections ~~second substrate~~ is configured to be used as a sticks that stir the sample in ~~dip said array locations into~~ said assay wells.

52. (previously presented) The array of arrays according to claim 29, wherein said second substrate comprises a molded substrate comprising said projections.

53. (previously presented) The array of arrays according to claim 29, wherein said second substrate comprises fiber optic bundles.

54. (previously presented) The array of arrays according to claim 29, wherein said second substrate comprises arrays made by photolithographic techniques.

55. (currently amended) The array of arrays according to claim 41, wherein said plurality of projections ~~second substrate~~ is configured to be used as a sticks that stir the sample in ~~dip said array locations into~~ said assay wells.

56. (previously presented) The array of arrays according to claim 41, wherein said second substrate comprises a molded substrate comprising said projections.

57. (previously presented) The array of arrays according to claim 41, wherein said second substrate comprises fiber optic bundles.

58. (previously presented) The array of arrays according to claim 41, wherein said second substrate comprises arrays made by photolithographic techniques.

59. (new) The array of arrays according to claim 29, wherein said first and second substrates are configured to be moved relative to one another in three dimensions when said sample is in said assay wells.

60. (new) A method of making an array of arrays, comprising:

(a) providing a plurality of arrays, wherein each array comprises a plurality of different bioactive agents attached to discrete sites of a solid support;

(b) placing each said solid support on a projection of a substrate to form a substrate comprising a plurality of said arrays configured as a plurality of projections to be dipped from above into a plurality of wells of a microtiter plate.

61. (new) The method of claim 60, wherein said array is made by a spotting, printing or photolithographic technique.

62. (new) The method of claim 60, wherein said bioactive agents comprise nucleic acids.

63. (new) The method of claim 60, wherein said arrays each comprise 1000 different bioactive agents per square centimeter.

64. (new) The method of claim 60, wherein said substrate comprises a molded substrate.

65. (new) The method of claim 60, wherein said substrate comprises fiber optic bundles.

66. (new) The method of claim 60, wherein said substrate is not a fiber optic array.

67. (new) The method of claim 60, wherein said solid support comprises silicon or modified silicon.

68. (new) A method of making an array of arrays, comprising:

(a) providing a substrate having a plurality of projections;

(b) modifying the surface of said projections to produce arrays of discrete sites on individual projections of said substrate, thereby forming a substrate comprising a plurality of said arrays configured as a plurality of projections to be dipped from above into a plurality of wells of a microtiter plate, wherein each of said arrays comprises a plurality of different bioactive agents attached to said discrete sites.

69. (new) The method of claim 68, wherein said surface is modified by a spotting, printing or photolithographic technique.

70. (new) The method of claim 68, wherein said bioactive agents comprise nucleic acids.

71. (new) The method of claim 68, wherein said arrays each comprise 1000 different bioactive agents per square centimeter.

72. (new) The method of claim 68, wherein said substrate comprises a molded substrate.

73. (new) The method of claim 68, wherein said substrate comprises fiber optic bundles.

74. (new) The method of claim 68, wherein said substrate is not a fiber optic array.

75. (new) The method of claim 68, wherein said substrate comprises silicon or modified silicon.